

## ABSTRACT OF THE DISCLOSURE

This present invention relates to a method of creating a shell element analytical model for two-dimensional analysis from a three-dimensional solid analytical model by a finite element method on the basis of three-dimensional geometric data designed by three-dimensional CAD. An analytical model conversion method of this invention is an analytical model conversion method of converting a three-dimensional analytical model into a two-dimensional analytical model, which includes generating tetrahedral solid elements for an input three-dimensional geometric model, and connecting the intermediate nodes of sides that extend in the direction of plate thickness in each solid element to generate a triangular or rectangular shell element.